

44. >SOLID<>POLYMER<>FUEL<>CELL< AND ITS OPERATION METHOD

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PROBLEM TO BE SOLVED: To retard the poisoning of a fuel electrode catalyst by CO in a fuel gas by specifying the content of ruthenium in a platinum-ruthenium catalyst of the fuel electrode and specifying the operation temperature of a >solid<>polymer<>fuel<>cell<.

SOLUTION: In a >solid<>polymer<>fuel<>cell<, slurry comprising carbon powder and a water repellent agent is applied to the one surface of a carbon >porous< body 29, and sintered at about 360(degree sign)C to form a gas diffusion >layer< 30. A >catalyst<>layer< 31 is formed on the gas diffusion layer 30 so that the content of ruthenium to platinum is 2-50wt.% or more but 85wt.% or less, and the platinum carrying amount is about 1.5mg/cm(sup)2(end sup). The operation temperature of the >fuel<>cell< is set to between 100(degree sign)C and 120(degree sign)C. Even if CO is contained in a fuel gas, the poisoning of platinum in the >catalyst<>layer< 31 is retarded, and the >fuel<>cell< with stable power generating performance for a long time is obtained.

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